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Level Technology Adoption and Characteristic Cattle Breeders who following Bachelor Village Building

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ABSTRACT

Indonesian goverment made several partnership programs including undergraduate programs develop the village. This study aimed to determine characteristic the level of technology adoption beef cattle breeders who follow the Bachelor Village Building (SMD). This study was conducted in January 2016 through February 2016 in Bone Regency, South Sulawesi Province. The population is all beef cattle breeders who follow the SMD. Sample selection is purposive sample beef cattle breeders who followed the SMD in the Bone Regency. The research method is descriptive statistics using Likert Scale and frequency distribution. The results showed that the level of technology adoption beef cattle breeders who followed the SMD program in the category of medium if the terms of the number and amount of training delivery technology adopted technology and characteristic breeders mostly productive (91 %), secondary level education (59, 1%), number of family members slightly (81.8%), the number of livestock ownership is high (59.1%), raising experience (68.2 %). Because of the frequency of training frequensi technology on the development of beef cattle business further improved for farmers who take the program SMD

KEY WORDS
technology, level adoption, beef cattle, characteristic

INTRODUCTION

Paradigm farm development was the realization of a healthy society and productive and creative through a tough farm based on local resources. To achieve this paradigm performed a variety of missions, namely: (1) provide food from cattle, (2) empower human resource farms, (3) increase the income of farmers, (4) create jobs livestock, and (5) to preserve and utilize natural resources, which as a whole in line with agricultural development programs that build food security and developing the agribusiness sector. Further development in the field of livestock carried out through the main livestock development strategy pillars, namely (1) the potential development of livestock and breeding stock, (2) the development of animal feed, (3) development of cultivation technology. The third main pillar of the impacted farm sanitation and animal health as well as industrial upgrading and marketing of livestock products, institutional development efforts and skills of farmers and farm development areas [1,2]. Some groups and communities are helping to farmers becoming experts at managing farms as ecosystems;they also have supportive and enabling external goverment and nongovernment institutions,which have reoriented their activities to focus on local needs and capabilities.Most policies still actively encorage fanning that is dependent on external inputs and technologies[3]

Beef cattle raising effort is an attempt to improve productivity beef as optimally as possible. Cattle business with an intensive pattern had used technologies intensively. By combining technology, capital, and resources in

order to obtain optimum output [4]. Therefore, the socio-economic and psychological variables substantially influencing the technology adoption of different enterprises must be taken into consideration while accelerating the pace of technology adoption under diversified farming system [5]

In line with this, the government implemented a program that is patterned bottom up i.e. SMD which was addressed to graduates in the field of animal husbandry or veterinary to develop groups of cattle with the requirements specified. Bachelor Village Building is a scholar who accompanied a group of cattle in the village and scholars act as chairman of the group members as well as assist in running the farming. The task of these scholars, among others, to promote farmers and groups in the face of various obstacles in order to build a group of Agribusiness more advanced and broader insight that is expected to access capital from bank funding sources in developing the breeder group.

Bone Regency is one of regencies in South Sulawesi Province who received SMD through the selection and designation Faculty of Animal Sciences University of Hasanuddin in cooperation with the Department of Animal Husbandry and Animal Health of South Sulawesi Province. From the year 2008 - 2012, there are seven packages SMD and farmer groups-livestock auxiliaries. Bone Regency also from year to year 2008-2012 are always getting packages SMD and the addition of packages in 2011 and 2012 that each of the two packages of previous years. The addition of the package indicates that the Village Building Undergraduate Program will be needed for the development of farms through the development of cattle-farmer groups in Bone regency [6].

Implementation of the program SMD is successful if the three indicators is successfully implemented, namely the economical aspects (gain capital from the farm were carried out and their diversification), technical aspects (increase the livestock population of the efforts undertaken; increase in productivity of livestock that are cultivated and the application of technology livestock farming) and institutional aspects (increasing class status groups; development of institutional business; and as apprenticeship or training for the local population [7]. That farmers adopst an innovation if they expect it to contribute to better achieving their goals with, which may include economic,social and enviromental aspects,while considering risk-related issues at the same time [8,9,]. Collaborations between research,development and extention structure should also be favoured to support the development and dissemination of innovations [10] . With these conditions, do research related to one indicator that is about the application technology-related livestock breeder technology adoption rate that follows SMD.

Methodology Research:

This study was conducted in January 2016 through February 2016 in Bone regency, South Sulawesi Province. The population is all beef cattle breeders who follow courses in South Sulawesi Province while the sample purposive sampling beef cattle breeders who followed SMD in Bone Regency. The research method is descriptive statistics using frequency distribution and Likert Scale by using indicator the number eexecution ttechnology training and total technology adopted.

RESULT AND DISCUSSION

Identity of Respondent:

Table I: Characteristics of Respondents Based on Frequency Distribution

Variable	Description	Frequency (Person)	Percentage (%)
Age (Year)	30-39	8	36,4
	40-49	8	36,4
	50-59	4	18.2
	60-69	2	9
Education	Elementary School	4	18,2
	Junior High School	5	22,7
	Senior High School/ Vocational School	13	59,1
Raising Experience (Year)	10-19	7	31,8
	20-29	4	18,2
	30-39	7	31,8
	40-49	4	18.2
Dependents Total (Person)	1-2	4	18.2
	3-4	14	63.6
	5-6	4	18.2
Livestock Total (a Cattle)	2-5	9	40.9
	6-10	12	54.5
	11-15	1	4.6

Table 1 shows that the age of breeder cattle that followed the SMD program largely is the productive age (82%) and this affected the conduct of business of beef cattle and anffect the physical ability to work in accordance with the opinion [11] that farmers in the category of productive age have the physical ability strong

and careful thought and are able to coordinate and take effective measures. This is accordance with the opinion of [12] that the age of farmers is closely related to adoption of technological innovation essential in improving the productivity. Farmers who were in productive age have enough power to manage the cattle.

Education beef cattle breeders who follow the program are largely SMD and the medium at the high school level is 59.1%, this shows that the farmers have experienced education though only up to high school level and this also affects the access to information and technology in an attempt to adopt a cow cut and level of education is an indicator of the quality of the population and is the key variable preformance human resource development, it is in accordance with the opinion of [13] that the relatively limited level of education can lead to slow to adapt to new technologies. Weak oversight and weak production in processing field is practiced. In general, education affects the way people think. Improving the quality of workers represented by the average level of education, te better that have a positive impact on productivity of labor

Table 1 shows that the experience of raising beef cattle breeders who followed the SMD program is already high because more than 10 years. The experience of raising also affects farmers beef cattle in adopting a technology in its business, it is in accordance with the opinion of [12] that the experience of breeding beef cattle is a variable that was instrumental in determining the success of farmers in improving the development of the cattle business and at the same time improving the income of farmers, raising experience is a good teacher, with experience enough to raise cattle breeders will be more careful in trying and can fix the flaws in the past. Also in line with the opinion of [13] that by raising quite a long time gave no indication that the farming long enough then the knowledge and skills of farmers on livestock maintenance management has a better ability.

Number of family shows the number of people who become dependents of the respondents. Table 1 shows the number of family respondents' from 3 to 4 numbers have the highest percentage in beef cattle rancher with follows SMDthat is the number of 14 people (63.6%). Number of dependents affecting livestock businesses, this is in accordance with the opinion of [14] which states that by increasing one family member is able to increase the cattle business and productive activities are activities performed by members of the family to earn, in cash or inkind.It is accordance with the opinion of [2] that the number of family members can influence the business activity of a farmers because can supply manpower availability to assist the activities. Also, the greater the number of family members, the greater the family need to be met. Thus, will encourage farmers to obtain additional income through other business.

Table I shows that the majority ownership of the number of cattle on a scale of 6-10 (54.4%), this means bring the respondents still have a cow on a medium scale, it is in line with the opinion of [14] that small-scale farms have limitations in capital and business management in addition low ownership generally raising cattle because beef is a sideline, In accordance with the opinion [2] describes that the number of beef cattle ownership is an indicator of the success of a cattle business. With the increasing number of cows that can be sold per year will increase, thereby increasing the income. The number of livestock ownership did not significantly affect adopter categories, according the opinion [15] that the low number of livestock ownership will result in farmers being reluctant to increase the productivity of livestock. [16] opinion that past experiences that a person can influence his tendency to feel the need ang ready to accept new knowledge

Level Technology Adoption Cattle Breeders who SMD:

Adoption is a process that occurred since the first time someone hears something new for the person to adopt (accept, implement, use) new things. In the process of adoption, farmers, ranchers target take a decision after going through several stages. At first, the farmers-ranchers know the target of an innovation that could be something completely new or that has long been found but it is still new to the farmer-breeders target. If the farmer-breeders are implementing an innovation, the farmer-breeders that goal leaving the old ways [17]

Table 2: Level Technology Adoption Cattle Breeders who following SMD

Measurement scale	The number Execution Technology Training		Total technology adopted	
	Number (person)	Percentage (%)	Number (person	Percentage (%)
High	11	50	10	45.5
Medium	0	0	1	4.5
Low	11	50	11	50

Table 2 shows that the rate of adoption of breeders of beef cattle program SMD on indicators of the amount of training delivery technology in high category as much as 50% and low category is 50%, this indicates that respondents who diligently follow the implementation of technology training and there is also less follow implementation of technology training and on average category beef cattle breeders who followed the SMD program, namely the category of being temporary in the number of technologies adopted indicator that the high category by 10 people (45.5%), moderate category (4.5%) and the category low of 11 people (50%) and when averaged showing beef cattle breeders who followed the SMD program in the category of being. These results are in accordance with the opinion of [18] that is basically the process of adoption through the stages before

people will accept or implement with their own conviction to the length of time between stages one stage more unequal results. That innovation as an idea, behavior, information, products and new practices are not widely known by the public, will not immediately be accepted and used within a period of rapid and concurrent. Society takes time to make a decision to accept or reject the innovation. There are many factors that influence the speed of innovation adoption, namely the nature of innovation itself, the nature of the target, decision making, communication channels are used, the state of extension and variety of information sources. There are many factors that influence the speed of innovation adoption, namely the nature of innovation itself, the nature of the target, decision making, communication channels are used, the state of extension and variety of information sources. The adoption or acceptance of recommended animal husbandry technology is a complex process involving sequence and thought of action. The action of an individual dairy farm woman is governed by personal, social economics, psychological and cultural factors involved in situation [19, 20]. If the adoption of improved technologies, the production will also increase, which will affect the income of farmers in accordance opinions [21] that construction of livestock subsector shouldbe implemented in stages and planned to improve the welfare of society. This is done through increased livestock production to increase the farmers' income.

Conclusions:

The results showed that the rate of adoption of beef cattle breeders who followed the SMD program (Bachelor Village Building) are in the category of being the indicator on the amount of training delivery technology and the number of technologies are adopted. Preferably scholar farms that manage programs SMD reproduce counseling and training activities for beef cattle breeders who followed the program.

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